Machinist On-the-Job Checklist



	Level 1	Page 1/3
Red Seal Tasks	On-The-Job Duties	Completed
Performs safety-related tasks	Become familiar with WHMIS, OH&S & safety practices	
	Select & use PPE as well as various safety equipment	
	Interpret orthographic drawings	
	Use dimensioning system	
	Apply tolerances, section and auxiliary views	
Organizes work	Demonstrate isometric sketching	
	Use engineered drawings	
	Sketch parts	
	Use steel rules, vernier scales, angular measuring tools & micrometers	
	Select appropriate material for task	
Processes workplace material	Use of hoisting, lifting & rigging equipment	
	Mark workpiece for identification	
	Perform quality control of the workpiece	
	Clean, lubricate & maintain machines	
Maintains machines, tooling & inspection equipment	Sharpen drill bits	
	Fill machines with cutting fluid & lubricants	
	Observe troubleshooting equipment	
	Observe the maintaining of machine alignment	
	Help inspect equipment	







	Level 1	Page 2/3
Red Seal Tasks	On-The-Job Duties	Completed
Performs hand processes	Perform layout	
	Saw workpiece	
	File workpiece	
	Perform hole making, threading & pressing operations	
	Install thread inserts	
	Deburr workpiece	
	Broach, form & finish workpieces	
Refurbishes components	Observe the disassembling and analyzing of components	
	Select power saw	
	Install saw blade, select speed & feed and adjust saw	
Sets up & operates power saw	Set up work piece on power saw	
	Perform straight & angle cuts using a power saw	
	Perform the cutting of irregular material	
Sets up drill press	Select drill press & plan operation of drilling	
	Select drill press speed & feed	
	Set up jig, fixtures and work holding devices	
	Finish holes using drill press	







	Level 1	Page 3/3
Red Seal Tasks	On-The-Job Duties	Completed
Sets up & operates conventional lathes	Select conventional lathe	
	Help plan operation of conventional lathe	
	Help set up work holding device, tooling & accessories	
	Help set up workpiece on conventional lathe	
	Perform external & internal turning	
	Perform grooving, parting, taper turning & knurling	
	Cut basic 60-degree screw threads	
Sets up & operates conventional milling machines	Use various conventional milling machines	
	Become familiar with work holding devices & methods	
	Perform vertical milling machine operations	

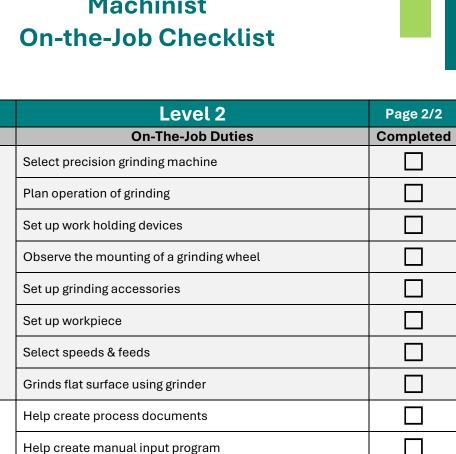




	Level 2	Page 1/2
Red Seal Tasks	On-The-Job Duties	Completed
Processes workpiece material	Perform heat treatment processes	
	Perform quality control	
	Sketch parts	
Maintains machines,	Troubleshoot equipment with supervision	
tooling & inspection equipment	Maintain machine alignment	
Pafurhishas components	Disassemble gear box & analyze components	
Refurbishes components	Assemble gear box	
	Become familiar with carbide tooling	
Sets up & operates	Cut precision tapers	
conventional lathes	Cut tapered thread	
	Use a steady rest & follower rest	
	Perform vertical milling & horizontal milling	
	Use indexing devices	
Sets up & operates conventional milling machines	Mill surface, profiles, pockets, slots, grooves and keyways	
	Cut gears & splines	
	Drill & ream holes	
	Cut countersink bores, chamfers & spot faces	
	Perform tapping	
	Bore holes	







Transfer program to & from control memory

Select tooling & tool holders

Set up tooling & tool holders

Monitors machining process

Interrupt & restart program cycle

Set up workpiece

Verify program

Adjust offsets

Establish work datum



Red Seal Tasks

Sets up & operates

precision grinding

Performs CNC

programming

machines

Sets up & operates CNC

machines

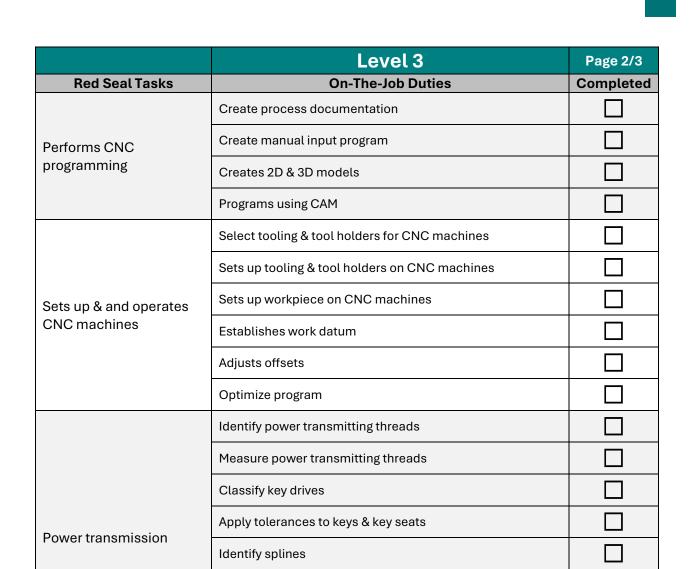




	Level 3	Page 1/3
Red Seal Tasks	On-The-Job Duties	Completed
Maintains machines, tooling & inspection equipment	Inspect & maintain lathes	
	Inspect & maintain milling machines	
	Inspect & maintain horizontal boring mills	
	Inspect & maintain precision grinders	
	Plan operation of milling	
	Set up work holding device	
Sets up & operates conventional milling	Set up tooling for milling machine	
machines	Set up milling accessories	
	Set up workpiece on milling machine	
	Select machine speeds & feeds	
	Select precision grinding machine type	
	Plans operation of grinding machine	
Sets up precision	Set up work holding device for precision grinding machine	
grinding machines	Mount grinding wheel	
	Set up grinding accessories	
	Set up workpiece on precision grinding machine	
	Select speeds & feeds	
Operates up precision grinding machines	Grinds profile	
	Grinds internal & external cylindrical & tapered surfaces	
	Grinds tools & cutters	
	Performs honing	







Identify common shaft coupling arrangements

Identify common types of clutches

Identify types of gears



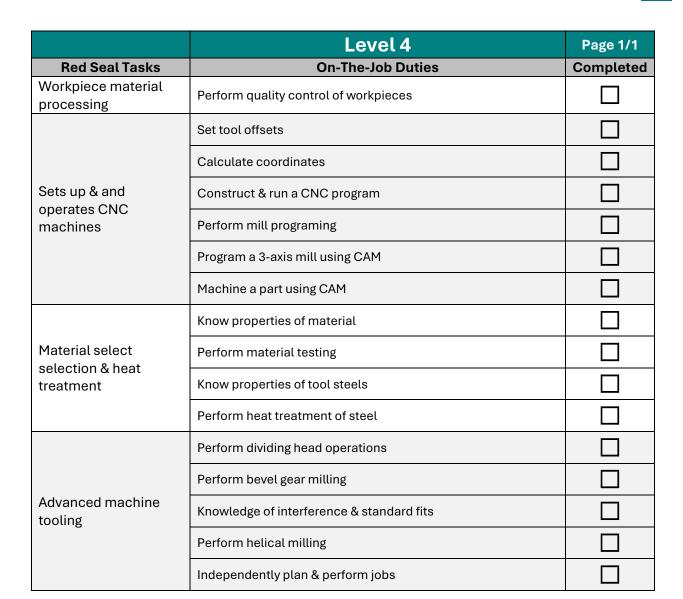




	Level 3	Page 3/3
Red Seal Tasks	On-The-Job Duties	Completed
Cutting tool technology	Select cutting tool geometries	
	Use hole making tools	
	Identify surface finish	
	Optimize metal removal rates	



Machinist On-the-Job Checklist





Machinist On-the-Job Checklist



Information Regarding the Checklist

Saskatchewan Apprenticeship and Trade Certification Commission's (SATCCs) On-The-Job Checklist provides a complete list of trade-specific Red Seal tasks for apprentices to complete under the supervision of a journeyperson. This work should be completed prior to attending the technical training level under which the duties are listed (e.g. Level 1 completed prior to attending Level 1 technical training).

Completing this checklist will ensure that apprentices are exposed to the full scope of a particular Red Seal trade throughout their apprenticeship program. It will also help prepare apprentices for each level of technical training by performing work on-the-job relating specifically to topics covered later on. The tradespecific tasks listed have been reviewed by certified journeypersons in Saskatchewan for their accuracy and have been set to an appropriate skill level.

An apprentice spends approximately 85% of their apprenticeship term training on-the-job. It is the both the apprentice and journeyperson or approved tradesperson's responsibility to supervise an apprentice's practical skills development during their program.

To promote transparency and consistency, this document aligns with the 2018 Machinist Red Seal Occupational Standard (Employment and Social Development Canada).

A complete version of the Occupational Standard can be found at www.red-seal.ca

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